

WTO Law Constraints
on Border Tax
Adjustment and Tax
Credit Mechanisms
to Reduce the
Competitive Effects of
Carbon Taxes

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Abstract

It is possible to design an import border tax adjustment that would pose a reduced risk of violating World Trade Organization (WTO) law, and, in the event a violation is found, an increased likelihood of satisfying the requirements for an exception. The lowest risk of successful WTO legal challenge would be presented by a border tax adjustment (BTA) in relation to a national product-based tax that does not vary by reference to carbon intensity of production, but is set at a fixed rate for specified categories of products. A national carbon consumption tax that varies by reference to the carbon intensity of production could achieve many of the same goals as the combination of a national carbon tax on production combined with an import BTA. If the consumption tax structure is not used, then an export border tax adjustment could address the foreign market competitiveness issue, but might significantly reduce the likelihood of the related import BTA satisfying the requirements for a WTO law exception. Alternatively, it is possible to provide domestic subsidies to high-carbon industries.

Key Words: World Trade Organization, carbon tax, border tax adjustment

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WTO Law Constraints on Border Tax Adjustment and Tax Credit Mechanisms to Reduce the Competitive Effects of Carbon Taxes

Joel P. Trachtman*

Executive Summary

Many uncertainties surround the World Trade Organization (WTO) legal rules concerning border tax adjustments in relation to carbon taxes on import and export and concerning tax credits to compensate for carbon taxes. However, it is possible to design an import border tax adjustment that would pose a reduced risk of violating WTO law and, in the event a violation is found, an increased likelihood of satisfying the requirements for an exception. The lowest risk of successful WTO legal challenge would be presented by a border tax adjustment (BTA) in relation to a national product-based tax that does not vary by reference to carbon intensity of production but is set at a fixed rate for specified categories of products. A national carbon consumption tax that varies by reference to carbon intensity of production could achieve many of the same goals as the combination of a national carbon tax on production combined with an import BTA, including the creation of a level playing field within the United States, with a good chance of qualifying for an exception under WTO law. In addition, a national carbon consumption tax would not apply to goods consumed abroad and would thereby assist with competitiveness in foreign markets. If the consumption tax structure is not used, then an export border tax adjustment could address the foreign market competitiveness issue but might significantly reduce the likelihood of the related import BTA satisfying the requirements for a WTO law exception. An alternative to an export border tax adjustment may be to provide domestic subsidies to industries that are expected to experience competitive detriments in foreign markets as a result of a national carbon tax. So long as these subsidies are not contingent on exportation and do not cause specifically defined categories of adverse effects to foreign producers, they are not likely to violate WTO law.

Even if a national carbon tax regime with import BTAs and/or export BTAs, or a subsidy to support exports, were to violate WTO law, the formal response by other states would

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generally (except possibly in the case of export subsidies) be imposed prospectively after a three-year litigation period and would be in the form of suspension of concessions or other obligations in an amount equivalent to the nullification or impairment of WTO rights resulting from the measure found to violate WTO law. As a practical matter, a state may decide to engage in “civil disobedience” or to operate in “efficient breach” in response to this level and type of retaliation. The specific industries targeted for the retaliation could even be supported through subsidies.

I. Introduction

An attractive response to climate change would be to establish a uniform worldwide greenhouse gas (for simplicity of reference, “carbon”) tax at the level that would induce the desired reduction of carbon emissions. There are formidable political barriers to reaching an agreement toward this worldwide response, so it is useful to evaluate a plausible alternative response involving unilateral national action. Unilateral national action might take the form of (i) a national carbon tax or (ii) a national command-and-control system based on carbon permits, combined with a trading facility. This paper focuses on the WTO legal rules that would affect the structure of a national carbon tax as it might be implemented by the United States.

Any purely national system would fail to address collective action problems and might be highly compromised as an effective system of carbon reduction, if leakage occurs as a result of (i) imports of high-carbon products or (ii) displacement of exports. These predicted phenomena not only reduce efficacy of carbon reduction but also undermine political support for a purely national carbon reduction system. Leakage by virtue of imports of high-carbon products may be ameliorated by imposition of taxes or restrictions on such imports, or the economic effects of imports of high-carbon products may be ameliorated by a system of domestic subsidies to producers competing with these imports. Displacement of exports may be ameliorated by export subsidies.

Thus the United States might consider implementing a national carbon tax, but in order to do so without excessive leakage and concomitant adverse effects on the competitive position of energy-intensive, trade-exposed (EITE) domestic producers, it may also consider (i) a BTA mechanism to impose a coordinate tax on imports (an “import BTA”), (ii) a BTA mechanism to refund carbon taxes on exports (an “export BTA”), and/or (iii) a tax credit system to reduce the tax payment obligation for EITE firms achieving higher levels of carbon reduction (a “carbon tax credit”).

The purpose of this paper is to elaborate the WTO law considerations that should be taken into account in structuring these mechanisms.¹ This paper has been prepared in connection with the Resources for the Future workshop “Addressing Competitiveness Concerns in a Carbon Tax: What Are the Options?” Other papers prepared in connection with the workshop address (i) design principles for a “model” approach for a BTA mechanism associated with a US national carbon tax and (ii) design principles for a “model” approach for output-based carbon tax credits as a substitute for a BTA mechanism.

This paper examines the likely components of an import BTA, an export BTA, and a carbon tax credit (for ease of exposition, it examines the export BTA after examining a carbon tax credit) and assesses the conditions under which, and extent to which, these components would be subject to constraint under WTO law. The purpose is to determine the scope of policy space under WTO law for an import BTA, an export BTA, and a carbon tax credit.²

II. Import BTA

The economically important aspect of an import BTA is that it imposes a charge on foreign producers or imports. This charge is structured to achieve some level of equivalence in relation to a carbon tax imposed on domestic producers or products. Although some goods emit carbon on their consumption, the greatest concern relates to carbon emitted on production, so these types of charges are likely to be linked to the manner in which the good is produced. The relevant charge could even be structured as a consumption tax, making the consumer the nominal taxpayer.

Potentially applicable WTO law includes the following:

¹ Regional trade agreements of the United States may also constrain these policy decisions, but the constraints are generally of the same type as those discussed in this paper.

² For excellent overviews of the relation of trade law to climate change, see Jennifer Hillman, *Changing Climate for Carbon Taxes: Who's Afraid of the WTO?*, German Marshall Fund Climate Change and Energy Policy Series (2013); Joost Pauwelyn, “Carbon Leakage Measures and Border Tax Adjustments under WTO Law,” in D. Prevoost and G. Van Calster (eds.), *Research Handbook on Environment, Health and the WTO* (Cheltenham, UK: Edward Elgar, 2013), 448, 475; Patrick Low and Gabrielle Marceau, *The Interface between the Trade and Climate Change Regimes: Scoping the Issues*, World Trade Organization Economic and Statistics Research Division, Staff Working Paper ERSD-2011-1 (2011); Gary Hufbauer, Steve Charnovitz, and Jisun Kim, *Global Warming and the World Trading System* (Washington, DC: Peterson Institute for International Economics, 2009).

- Article II of the General Agreement on Tariffs and Trade (GATT), exempting imports from nontariff duties or charges of any kind imposed on or in connection with importation;
- Article III of GATT, providing for national treatment antidiscrimination;
- Article I of GATT, providing for most favored nation (MFN) antidiscrimination; and
- Article XX of GATT, providing exceptions from the above restrictions for measures necessary to protect human, animal, or plant life or health (XX(b)) and for measures relating to conservation of exhaustible natural resources (XX(g)).

Before I review each in turn, I outline below their relationship in assessing the WTO legality of an import BTA. In designing an import BTA, the goal will be to (i) avoid using features that together constitute a violation of WTO law and/or (ii) include features that are necessary components of exceptions and avoid features that obviate the availability of exceptions.

A. Does the Import BTA Violate a Provision of WTO Law?

1. Is the import BTA (i) a charge on or in connection with importation (an “import charge”) under GATT Article II:1(b), or is it (ii) equivalent to an internal tax (an “internal tax”) in respect of the like domestic product?
 - a. If it is an import charge, then, when added to the applied tariff, it cannot exceed the scheduled tariff.
 - b. If it is an internal tax, then it is not subject to Article II.³
2. If the import BTA is an internal tax, it must satisfy the requirements of Article III:2. The components of Article III:2 are the following:
 - a. Imported products are not taxed in excess of like domestic products, where “likeness” may limit consideration of differences in production processes.
 - b. Imported products are not taxed dissimilarly to directly competitive or substitutable domestic products, where the determination of the directly

³ There is a plausible argument that an import BTA could be subject to *both* Article II and Article III. *See* Hillman, *Changing Climate for Carbon Taxes*. This argument is based in part on the fact that the exception in Article III:2(a) for “charges equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III” would be inutile if there were no overlap between Articles II and III. However, even if this argument prevails, the only discipline applicable to an internal tax is that of Article III:2.

competitive or substitutable nature may limit consideration of differences in production processes.

3. Regardless of the outcome of the Article II/Article III analysis above, is the import BTA consistent with the Article I MFN treatment requirement? The components of the Article I MFN analysis are the following:
 - a. Any advantage
 - b. In connection with importation
 - c. Must be accorded immediately and unconditionally
 - d. To like products
 - e. Originating in all member states

B. If the Import BTA Violates a Provision of WTO Law, Is There an Applicable Exception?

1. Does the violation preliminarily qualify for an exception under Article XX(b)?
Components:
 - a. Necessary
 - i. Balancing test
 - ii. Least violative alternative
 - b. To protect human life
2. Does the violation alternatively preliminarily qualify for an exception under Article XX(g)? Components:
 - a. Related to (close and genuine relationship of means and ends)
 - b. Conservation of
 - c. Exhaustible natural resources
 - d. Made effective in conjunction with domestic restrictions
3. Does the violation also satisfy the requirements of the lead-in (“chapeau”) of Article XX?
Components:
 - a. Not arbitrary or unjustifiable discrimination between countries where the same conditions prevail
 - i. Requirements sufficiently flexible for different national conditions
 - ii. Not designed to coerce state to change policy
 - iii. Due process
 - iv. Prior negotiations with exporting state
 - b. Not disguised restriction on trade

I now review each of the parameters listed above.

A. Does the Import BTA Violate a Provision of WTO Law?

1. GATT Article II

Article II of GATT regulates tariffs applied on importation. Article II:1(a) requires member states to accord to imported goods treatment no less favorable than that provided for in its tariff schedule. Article II:1(b) adds that imports shall be exempt from **all other duties or charges of any kind imposed on or in connection with importation (an “import charge”)**. The core question here is whether an import BTA is an import charge.

If a BTA were considered an import charge, it would be likely to exceed the relevant tariff bindings, which for the United States generally are equal to the applied tariff.⁴ This might be considered a kind of strict scrutiny: if it is an import charge, it violates Article II. It is therefore important to distinguish between import charges, on the one hand, and internal taxes applied at the border and excepted from Article II pursuant to Article II:2(a), on the other hand. Under Article II:2(a), member states are permitted to impose

a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.⁵

In its 2009 *China—Auto Parts* decision,⁶ the WTO Appellate Body clarified the distinction:

For a charge to constitute an ordinary customs duty [subject to Article II] ... the obligation to pay it must accrue at the moment and by virtue of or, in the words of Article II:1(b), “on”, importation. On the other hand, “charges falling within the scope of Article III are charges that are imposed on goods that have already been “imported”, and that the obligation to pay them is triggered by an “internal” factor, something that takes place within the customs territory.⁷

⁴ Note also that if a BTA is collected at a level that, when added to the applied tariff, remains below the relevant tariff binding, it would not violate Article II. Furthermore, if the bindings are revised to reflect the import BTA, either in a tariff negotiation round or under Article XXVIII of GATT, it would be permitted.

⁵ Asterisk referring to ad note omitted.

⁶ Appellate Body Reports, *China—Measures Affecting Imports of Automobile*, WT/DS339/AB/R, WT/DS340/AB/R, WT/DS342/AB/R, adopted 12 January 2009, para. 158.

⁷ *Id.*, at para. 161.

So the application of strict scrutiny under Article II versus the more nuanced and permissive application of the national treatment obligation under Article III:2 depends, according to the Appellate Body in *China—Auto Parts*, on whether the “charge accrues because of an *internal* factor (e.g., because the product was *re-sold* internally or because the product was *used* internally), in the sense that such ‘internal factor’ occurs *after the importation* of the product of one Member into the territory of another Member.”⁸ “To attract the more permissive GATT

Structure a carbon tax so that it is triggered by an internal factor or action.

Article III, carbon taxes or charges on imports should, therefore, be designed in such a way that they are triggered not by importation as such, but by the sale, offering for sale, distribution or use of imported products once these products have cleared customs.”⁹

The ad note to Article III states that “any internal tax or other internal charge, ... which applies to an imported product and to the like domestic product and is collected ... in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge ... and is accordingly subject to the provisions of Article III.” This provision seems to parallel the exception under Article II:2(a), applying Article III:2 exclusively to charges that are equivalent to an internal tax on a product—charges eligible for adjustment.

One reading of Article III:2 is that it applies only to taxes on a product. Therefore, if the carbon tax and BTA are understood to be internal taxes on a product, then Article III applies. If, on the other hand, they are understood to be taxes on a production process, then, according to this reading, Article III does not apply. Note that if Article III does not apply, this is not protective of the BTA, because (i) if the import BTA is not considered an internal tax on a product, it would likely be considered a charge on import, and (ii) the inapplicability of Article III would likely make the exception under Article II:2(a) unavailable. The availability of Article II:2(a) would depend on the meaning of “imposed consistently with the provisions of paragraph 2 of Article III.” If, on the one hand, that phrase requires that Article III:2 be applicable, it would not be satisfied. If, on the other hand, that phrase requires that Article III:2 not be violated, it would be satisfied.

⁸ *Id.*, at para. 163 (emphasis in original).

⁹ Pauwelyn, “Carbon Leakage Measures,” 448, 475.

In the 1970 Border Tax Adjustments Working Party Report, the Working Party concluded that there was convergence of views to the effect that *taxes directly levied on products were eligible for tax adjustment*. Examples of such taxes comprised specific excise duties, sales taxes and cascade taxes and the tax on value added. . . . Furthermore, the Working Party concluded that there was convergence of views to the effect that *certain taxes that were not directly levied on products were not eligible for tax adjustment*. Examples of such taxes comprised social security charges whether on employers or employees and payroll taxes.¹⁰

There was divergence of views on so-called “taxes occultes,” which include energy taxes. Therefore, this precedent tells us little about the WTO legality of border tax adjustments for carbon taxes—whether they are appropriately addressed under Article II or under Article III.

In 1991, the pre-WTO *Tuna* Panel¹¹ took the following approach: regulation of processes and production methods (PPMs), which implicitly take place in the exporting state, is not “subject to” Article III:4 (relating to product regulation) because Article III deals only with regulation of products and (based on an interpretation of the ad note to Article III) is therefore “subject to” Article XI. These PPM-based national measures failed the strict scrutiny test of the prohibition of quantitative restrictions under Article XI and were therefore illegal, unless an exception was available under Article XX. The analogous structure in connection with BTAs would be that if a BTA measure does not fall under Article III:2, then it would fall under Article II and, facing strict scrutiny so long as there is insufficient space between the bound tariff and applied tariff, would be found illegal. Another view is that Article III covers all internal regulations, even when based on PPM or on extraterritorial considerations not reflected in the physical characteristics of the products as such.¹²

In the WTO period, the *US—Shrimp* dispute presented similar facts to those in the *Tuna* case and was analyzed at the panel level in a similar manner, but the Article XI violation found by the panel was not challenged by the United States, and therefore the Appellate Body did not

¹⁰ Working Party Report, *Border Tax Adjustments*, adopted 2 December 1970, BISD 18S/97, 100–101, para. 14 (emphasis added).

¹¹ GATT Panel Report, *United States—Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155.

¹² See Steve Charnovitz, “The Law of Environmental ‘PPMs’ in the WTO: Debunking the Myth of Illegality” 27 *Yale J. Int’l L.* 59 (2002); Robert Howse and Donald Regan, “The Product-Process Distinction—An Illusory Basis for Disciplining ‘Unilateralism’ in Trade Policy,” 11 *Eur. J. Int’l L.* 249 (2000).

have an opportunity to consider whether PPMs should be analyzed under Article III. The earlier *Canada—Autos* dispute, discussed below, raised the issue in connection with Article I whether a regulatory distinction that does not relate to the products themselves is per se a violation of the Article I MFN obligation. In that case, the panel found that PPM-based regulation does not per se violate Article I.¹³

In the *US—Superfund* decision, the GATT-era panel accepted that BTAs could be applied in respect of chemical inputs used in the production process but subsequently physically present in the product.¹⁴ This is distinguishable from the circumstance of PPM-based distinctions. However, the panel in that case stated that the environmental purpose is not relevant to its eligibility for adjustment. This might suggest that if the tax can be seen as a tax “in respect of a product” under Article II:2(a), then it is not significant whether it responds to consumption externalities, as in the *US—Superfund* context, or to production externalities.

Therefore, if a future WTO panel, or the Appellate Body, might follow the 1991 *Tuna* line of reasoning, it would be advisable to design a BTA so as to facilitate the argument that the import BTA is a tax on the relevant product, rather than on the PPM. If this effort is unsuccessful, then the import BTA might, under that line of reasoning, be considered an import charge and, depending on the space left by the difference between the bound tariff and applied tariff, a violation of Article II. However, it is still possible for a measure to be exempted under Article XX.

It is difficult to draw interpretive inferences from treatment of similar issues in other parts of the WTO Agreement. However, in Annex I to the WTO Agreement on Subsidies and Countervailing Measures (SCM), paragraph (h) seems to suggest that remission of prior stage cumulative indirect taxes in respect of “goods or services used in the production of like products” may be the subject of border tax adjustments on export.¹⁵ Note that services would be included within the PPM category. Furthermore, Annex II to the SCM Agreement allows indirect tax rebate schemes on inputs consumed in the production of the exported product, including

¹³ Panel Report, *Canada—Certain Measures Affecting the Automotive Industry (Canada—Autos)*, WT/DS139/R, WT/DS142/R, adopted 19 June 2000, as modified by Appellate Body Report WT/DS139/AB/R, WT/DS142/AB/R, para 10.29.

¹⁴ GATT Panel Report, *United States—Taxes on Petroleum and Certain Imported Substances*, L/6175, adopted 17 June 1987, BISD 34S/136.

¹⁵ See Kateryna Holzer, *Carbon-Related Border Adjustment and WTO Law* (Edward Elgar 2014), 101.

within these inputs energy, fuels, and oil used in the production process. Of course, these provisions operate in the context of export BTAs, not import BTAs.

At this point in the development of the WTO's law and jurisprudence, there is still substantial uncertainty as to whether a carbon tax applied in respect of the carbon emitted to

Although it is not free from doubt, if Article III:2 is understood to apply only to domestic taxes in respect of a product, and not to apply to taxes in respect of a PPM, then the application of Article III:2 may not insulate an import BTA from successful challenge under Article II. It has not definitively been decided whether Article II or Article III applies to taxes in respect of PPMs.

produce an imported product would be considered an internal tax eligible for a BTA.¹⁶

In India—Additional and Extra-Additional Duties on Imports from the United States, the Appellate Body found that

“the requirement of ‘consistency with Article III:2’ must be read together with, and imparts meaning to, the requirement in Article II:2(a) that a charge and internal tax be ‘equivalent.’” The Appellate Body concluded that the term “equivalent” “calls for a comparative assessment that is both qualitative and quantitative in nature” and that “[s]uch an assessment is not limited to the relative function of a charge and an internal tax, but must also include quantitative considerations relating to their effect and amount.”¹⁷

An import BTA must be qualitatively and quantitatively “equivalent” to a domestic carbon tax.

2. GATT Article III

Article III:2 of GATT requires national treatment in connection with internal taxes:

The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall

¹⁶ For a reference to diverse opinions among commentators on this issue, *see id.* at 102–103.

¹⁷ Appellate Body Report, *India—Additional and Extra-Additional Duties on Imports from the United States*, WT/DS360/AB/R, adopted 17 November 2008, paras. 169–180.

otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.*¹⁸

In order for this national treatment obligation to apply, imported and domestic products must first be found to be either “like” or “directly competitive or substitutable” (DCOS). If they are like, then the imported products cannot be subject to higher taxes than the domestic products.¹⁹ If they are DCOS, then the imported products must be “similarly taxed.”

i. Like Products and Directly Competitive or Substitutable Products

Of course, determinations of regulatory discrimination are always based on a comparison of two subjects of regulation, which must be comparable. In Article III:2, first sentence, this is the question of like products. In Article III:2, second sentence, as modified by the related ad note, this is the question of DCOS products.

To cut to the conclusion, the Appellate Body has taken the position that the determination of whether two products are like (or DCOS) is fundamentally a determination about whether the products are in competition with one another.²⁰ (In the rest of this section, I focus on like products, because the analysis is similar.) This is a perfectly understandable approach, and it definitely must be at least a threshold part of the determination. But whenever we define a treaty term such as “like products” by using other terms, it is difficult to avoid expanding or contracting its meaning. In this case, the Appellate Body has diminished “like products” from its ordinary meaning in an important way, because it has excluded national governmental determinations of regulatory categories from consideration in connection with the determination of likeness.

In effect, the question of whether products have a sufficient competitive relationship is a market-based determination, based on consumer perceptions. But consumers are, by definition, insufficiently sensitive to both consumption externalities and production externalities, and consumers also are victims of information asymmetries compared with producers. In economic

¹⁸ The ad note to this provision, indicated by the asterisk, requires that DCOS products be similarly taxed. While this provides a broader scope of product comparison, and a more relaxed standard for comparison of taxation, than those provided under the first sentence of Article III:2, these differences are unlikely to be material for the purposes of our analysis.

¹⁹ The second sentence of Article III:2, supplemented by the relevant ad note, uses “directly competitive or substitutable products” rather than “like.” For our purposes, the distinction between these terms is not salient.

²⁰ Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products (EC—Asbestos)*, WT/DS135/AB/R, adopted 5 April 2001.

theory, these are the reasons for regulation. So the bases for regulatory distinctions, because they are by definition not included in consumer perceptions, are systematically excluded from the determination of “like products.”

The result is that when two products are sufficiently in competition, they are determined to be like products even if they differ in exactly the dimension that gives rise to the regulatory concern. This approach suggests that a carbon import BTA, reflecting a domestic carbon tax, that distinguishes products on the basis of the carbon intensity characterizing their production, would apply a higher tax to products that are competitively like domestic products attracting a lower tax and thus violate Article III:2.

Indeed, in *Philippines—Distilled Spirits*,²¹ the main issue was whether the Philippines could tax sugar cane-based alcoholic beverages at lower rates than similar-tasting alcoholic beverages using other raw materials. The panel and Appellate Body found that the differences in raw materials were insufficient to make these products not like for the purposes of Article III:2. This holding suggests that differences in carbon usage may not be sufficient to make products not like.

The competition-based approach seems reasonable in connection with evaluation of non-Pigouvian revenue-raising taxes, such as those applied in these alcoholic beverage cases, because in that context, there is no regulatory policy rationale for the distinctions. However, the competition-based approach seems less appropriate in connection with BTAs or other Pigouvian type taxes.

ii. PPMs

The implication of the competition-based approach to likeness is that unless consumers distinguish among products on the basis of the amount of carbon used in producing the products, varying carbon intensity is unlikely to render products unlike.

Assuming that Article III:2 applies to PPM-based regulatory distinctions, the issue is whether—based on the criteria established by the jurisprudence—the products complying with the PPM requirements are competing with those that do not, and whether the challenged regulation affects the latter group negatively (if they are imported). Thus the operationalization

²¹ Appellate Body Reports, *Philippines—Taxes on Distilled Spirits*, WT/DS396/AB/R, WT/DS403/AB/R, adopted 20 January 2012.

of Article III may generally lead to the conclusion that despite the different PPMs, the products are like products,²² because they compete and are substitutable and should not be *prima facie* the target of regulatory distinctions restricting market access. (As discussed below, Article XX could, however, be invoked to justify the use of such a PPM regulatory distinction, as it was in *US—Shrimp*.)

It is possible that an import BTA that is calibrated to carbon intensity would violate Article III:2 because it applies a higher tax to imported like products, where likeness is determined on the basis of competitive relationship.

As discussed above, if Article III does not cover PPM-type internal taxes, then, under *ad* Article III, PPM-based internal taxes will likely be viewed as import charges controlled by Article II. If Article III does cover PPM-type internal taxes, the Appellate Body's application of a competition-based test suggests that in most cases, different PPMs would be insufficient to make products unlike. In other words, carbon-intensive imported products will be found to be like low-carbon domestic products. The test under Article III would then prohibit treating like products differently on the basis of PPM considerations.

The fact that under the Technical Barriers to Trade (TBT) Agreement the Appellate Body has implicitly found PPMs to be an inherent part of technical regulations raises questions about how this interpretation could influence future jurisprudence on the application of GATT Article III to PPMs.²³ In the 2012 Appellate Body decision on *Tuna II*, applying Article 2.1 of the TBT Agreement, the Appellate Body accepted that, while the United States had not appealed the panel's determination of likeness, it is permissible in theory under the Article 2.1 national treatment obligation to differentiate among products on the basis of a PPM: "Article 2.1 should not be read ... to mean that any distinctions, in particular ones that are based exclusively on particular product characteristics or on particular processes and production methods, would per

²² It is, however, conceivable that faced with a PPM distinction referring to human rights violations or other very serious concerns, consumer preferences may be so strong as to reverse the *prima facie* evidence that goods that are physically similar be nonetheless considered unlike, pursuant to the Appellate Body statement in para. 118 of *EC—Asbestos*. This type of situation may also constitute a justification under Article XX. The point is that if consumer preferences are strong enough to make them unlike, there is little need for regulation. This argument holds if the persons protected by the regulation are the consumers, rather than third parties.

²³ Appellate Body Report, *United States—Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, adopted 24 April 2012, para. 169.

se constitute ‘less favourable treatment’ within the meaning of Article 2.1.”²⁴ This decision was made in the context of the TBT Agreement, which specifically includes certain PPMs within its scope, so it does not necessarily suggest the outcome likely in a GATT Article III case.

Furthermore, in the *Canada—Feed-In Tariff Program* case, the Appellate Body stated that “What constitutes a competitive relationship between products may require consideration of inputs and processes of production used to produce the product.”²⁵ It is not clear how far the Appellate Body intended this statement to apply.

The implication of the Article III analysis set forth above is that a BTA that served to set the same carbon tax on imported products as applied to like domestically produced products, without attempting to calibrate for actual carbon intensity, would not violate Article III. Thus a BTA that is determined on a product-by-product basis, rather than on the basis of actual carbon content, would be protected from challenge. On the other hand, a regime applying a domestic carbon tax, and a BTA, on the basis of actual carbon utilization, or on the basis of some proxy for carbon utilization, would lead to the concern that a panel or the Appellate Body would find that the products were like despite their different carbon utilization, with the result that the higher tax applied to the imported products would violate Article III. However, where the carbon tax is based on carbon actually contained in the product, and to be emitted on consumption, a carbon tax and BTA regime that taxed the carbon content of the actual product would be defensible as a regulation of product characteristics.

3. Article I MFN Treatment

If the import BTA is applied differently among WTO member states, such as to reflect differences in carbon regimes, or because products of different WTO member states reflected different carbon intensities, it could violate the MFN obligation of Article I. The MFN antidiscrimination discipline expressed in Article I of GATT applies not only to ordinary customs duties but also to the matters referenced in Article III:2 and III:4, including internal taxes. Thus, whether a BTA is characterized as an ordinary customs duty or as an internal tax, it must also comply with Article I of GATT.

²⁴ Appellate Body Report, *United States—Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, adopted 13 June 2012, para. 211 (citation omitted).

²⁵ Appellate Body Reports, *Canada—Certain Measures Affecting the Renewable Energy Generation Sector / Canada—Measures Relating to the Feed-In Tariff Program*, WT/DS412/AB/R, WT/DS426/AB/R, adopted 24 May 2013, para 5.63.

In the 1952 *Belgian Family Allowances* panel report,²⁶ the panel examined a Belgian law imposing a charge on foreign goods purchased by Belgian public bodies when they originated in a country whose system of family allowances did not meet specific requirements. This seems somewhat analogous to a BTA conditioned on a carbon regime in the exporting state. While the panel found it difficult to arrive at a “very definite ruling,” it stated that it “was of the opinion that the Belgian legislation on family allowances was not only inconsistent with the provisions of Article I (and possibly with those of Article III, paragraph 2), but was based on a concept which was difficult to reconcile with the spirit of the General Agreement.”²⁷

The panel in *Belgium Family Allowances* explained as follows:

The consistency or otherwise of the system of family allowances in force in the territory of a given contracting party with the requirements of the Belgian law would be irrelevant in this respect [the requirement that advantages be granted unconditionally], and the Belgian legislation would have to be amended insofar as it introduced a discrimination between countries having a given system of family allowances and those which had a different system or no system at all, and made the granting of the exemption dependent on certain conditions.²⁸

The meaning of “like products” in Article I is probably closer to the scope of “like products” in Article III:4 than to that contained in Article III:2.²⁹ However, for our purposes, the differences are unlikely to have significant consequences.³⁰ Thus the fundamentally competition-based approach to like products described above would be applied, presumably with the same type of outcome. That is, all steel of a certain type would be treated as like products and required to be treated the same, regardless of its origin. If an import BTA were structured simply to apply to that type of steel, regardless of its origin, there would be no violation of Article I. If, on the

²⁶ GATT Panel Report, *Belgian Family Allowances*, adopted 7 November 1952 (G/32–1S/59)

²⁷ *Id.*, at para. 8.

²⁸ *Id.*, at para. 3.

²⁹ “Like products” as defined in Article III:2 is understood to be narrower than “like products” as defined in Article III:4, because of the inclusion in Article III:2 of a separate discipline for a broader category of “directly competitive or substitutable” products. See Robert E. Hudec, “‘Like Product’: The Differences in Meaning in GATT Articles I and III,” in Thomas Cottier and Petros C. Mavroidis (eds.), *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law* (Ann Arbor: University of Michigan Press, 2000), 101–124. See also William J. Davey and Joost Pauwelyn, “MFN Unconditionality: A Legal Analysis of the Concept in View of Its Evolution in the GATT/WTO Jurisprudence with Particular Reference to the Issue of ‘Like Product,’” in *id.*, 13–50.

³⁰ Panel Report, *Indonesia—Certain Measures Affecting the Automobile Industry (Indonesia—Autos)*, WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R, and Corr. 1 and 2, adopted 23 July 1998, para. 14.141.

other hand, steel from different origins were treated differently based on (i) the amount of carbon used in production or (ii) the carbon tax or carbon limit regime of its origin country, countries whose steel is treated worse might claim a violation of Article I MFN.

In the *Canada—Autos* case, the panel rejected Japan’s argument that Article I prohibits less favorable treatment based on criteria unrelated to the product itself.³¹ The panel found that

[a] review of [previous dispute settlement] reports shows that they were concerned with measures that were found to be inconsistent with Article I:1 not because they involved the application of conditions that were not related to the imported product but because they involved conditions that entailed different treatment of imported products depending upon their origin.³²

The Appellate Body did not reach this issue but emphasized the unconditional and broad scope of Article I:1 in finding that mere differential treatment of products originating in different member states, regardless of the producer-based rationale, violates Article I:1. Although the Appellate Body did not emphasize this, its interpretation is based on the “like products” reference of Article I:1: automobiles are like products whether or not their manufacturers have invested in Canada.³³ Given the focus on Article I:1’s reference to the matters addressed in Article III:2 (national treatment) and to “any advantage,” it appears possible that like products taxed differently because of different carbon intensity might result in a violation of MFN.³⁴ The panel in *Indonesia—Autos* took a similar view.³⁵

As shown by the precedents described above, there would seem to be a conflict between carbon intensity–based differentiation in import BTAs and a strict understanding of the MFN obligation, to the effect that imported like products from one state cannot be treated differently from like products from other member states. The analysis here is similar to that under Article III, as discussed above. A BTA that varies by the carbon intensity of the PPM might be

³¹ Panel Report, *Canada—Autos*.

³² *Id.*, at para 10.25.

³³ Appellate Body Report, *Canada—Autos*, para. 85.

³⁴ For an example of a circumstance in which the fact of government certification did not provide sufficient distinction to support a finding that products were not like, see Panel Report, *European Economic Community—Imports of Beef from Canada*, adopted 10 March 1981, 28 BISD 92. For an example of differential import licensing procedures violating Article I:1, see Panel Report, *EC—Regime for the Importation, Sale and Distribution of Bananas*, adopted 25 September 1997, WT/DS27/R, paras. 7.188–7.193, 7.251–7.256, 7.235–7.241.

³⁵ Panel Report, *Indonesia—Autos*, , paras. 14.145–14.147.

understood to treat like products less favorably. A BTA that depends on the national carbon regime of the exporting state focuses on the regulatory context in which products are produced, rather than the actual characteristics of the products.

It may be attractive for like-minded states to enter into agreements for mutual recognition of one another's carbon regime and to apply import BTAs only to products coming from states for which no mutual recognition agreement exists. However, any mutual recognition agreement program should be structured so that there is no discrimination in the qualification requirements for mutual recognition agreement. Even with such a nondiscriminatory qualification regime, it is still possible that a strict reading of the Article I MFN obligation would require like products to be treated alike regardless of the exporting state's regulatory regime and regardless of the existence of a mutual recognition agreement. On the other hand, as discussed below, a mutual recognition regime with nondiscriminatory qualification requirements might be defensible under Article XX of GATT.

Another alternative would be for the United States to treat all imports from any exporting state precisely alike and assume that other countries that apply a domestic carbon tax would apply an export BTA in order to level the playing field.

B. If the Import BTA Violates a Provision of WTO Law, Is There an Applicable Exception?

Article XX of GATT provides exceptions from any obligation under GATT, including those discussed above. So, importantly, even if an import BTA violates Articles I, II, or III, it may still be permitted if it satisfies the conditions set forth in Article XX. The most likely bases for exception would be Article XX(b), for measures necessary to protect human health, or Article XX(g), for measures relating to the conservation of exhaustible natural resources. In addition to the condition that a measure satisfy one of the subparagraphs of Article XX, a measure must also satisfy the chapeau of Article XX, which requires that the measure not "constitute a means of arbitrary or unjustifiable discrimination" or a "disguised restriction on international trade."

1. Article XX(b)

In order to qualify for an exception under Article XX(b), the relevant measure must (i) be necessary, (ii) to protect human, animal, or plant life or health, and (iii) satisfy the requirement of the chapeau of Article XX to the effect that it not be applied as arbitrary or unjustifiable discrimination or a disguised restriction on trade. The burden of proof for each of these parameters is generally on the respondent.

Traditionally in GATT, the exceptional provisions of Article XX(a), (b), and (d) have been available to justify measures—otherwise incompatible with other GATT provisions—if they are “necessary” to achieve certain policy objectives. This has been interpreted to require that the country invoking these exceptions demonstrate that no other more WTO-compatible or less restrictive alternative was reasonably available to pursue the desired policy goal.

It was clear to the Panel that a contracting party cannot justify a measure inconsistent with another GATT provision as “necessary” in terms of Article XX(d) if an alternative measure which it could reasonably be expected to employ and which is not inconsistent with other GATT provisions is available to it. By the same token, in cases where a measure consistent with other GATT provisions is not reasonably available, a contracting party is bound to use, among the measures reasonably available to it, that which entails the least degree of inconsistency with other GATT provisions.³⁶

The Article XX necessity test was addressed in *Korea—Various Measures on Beef*, where Korea attempted to justify its dual retail system for beef by arguing the need for compliance with a domestic regulation against fraud. The Appellate Body interpreted the necessity test of Article XX(d) to imply a requirement for balancing among at least three variables:

In sum, determination of whether a measure, which is not “indispensable”, may nevertheless be “necessary” within the contemplation of Article XX(d), involves in every case a process of weighing and balancing a series of factors which prominently include the contribution made by the compliance measure to the enforcement of the law or regulation at issue, the importance of the common interests or values protected by that law or regulation, and the accompanying impact of the law or regulation on imports or exports.³⁷

After reiterating that WTO members have the right to determine for themselves the level of enforcement of their domestic laws,³⁸ the Appellate Body called for an authentic balancing and weighing of (at least) these variables: “The more vital or important those common interests

³⁶ See GATT Panel Report, *United States—Section 337 of the Tariff Act of 1930 (US—Section 337)*, adopted 7 November 1989, BISD 36S/345, para. 5.26; GATT Panel Report, *United States—Measures Affecting Alcoholic and Malt Beverages (US—Malt Beverages)*, adopted 19 June 1992, BISD 39S/206, para. 5.52; and GATT Panel Report, *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes (Thailand—Cigarettes)*, adopted 7 November 1990, BISD 37S/200, para. 223.

³⁷ Appellate Body Report, *Korea—Various Measures on Beef*, WT/DS161/AB/R, WT/DS169/AB/R, para. 164.

³⁸ *Id.*, at para. 177.

or values are, the easier it would be to accept as ‘necessary’ a measure designed as an enforcement instrument”,³⁹ “[t]he greater the contribution [to the realization of the end pursued], the more easily a measure might be considered to be ‘necessary’”;⁴⁰ and “[a] measure with a relatively slight impact upon imported products might more easily be considered as ‘necessary’ than a measure with intense or broader restrictive effects.”⁴¹

In *EC—Asbestos*, the Appellate Body tried to reconcile its new balancing test with the traditional least trade-restrictive alternative test. For the Appellate Body, the balancing referred to in *Korea—Various Measures on Beef* is part of the determination of whether a more WTO-compatible or less trade-restrictive alternative exists to attain the end pursued (as called for by the traditional necessity test of Article XX(b)).⁴² In light of France’s chosen level of protection, and noting that the protection of human life is vital and important to the highest degree,⁴³ the *EC—Asbestos* Appellate Body report concluded that “the remaining question, then, is whether there is an alternative measure that would achieve the same end and that is less restrictive of trade than a prohibition.”⁴⁴

In *US—Gambling (2005)*, interpreting the similar provisions of the General Agreement on Trade in Services, the Appellate Body further clarified the process for determining whether a measure is “necessary.” First, the responding party must make a *prima facie* case that its measure is necessary by “weighing and balancing” the factors outlined in *Korea—Various Measures on Beef*. Then, if the *complaining party* raises an alternative measure that it feels the responding party could have taken, it is for the responding party to rebut, showing that the proposed alternative does not achieve the regulatory goal or is not reasonably available. In contrast to

³⁹ *Id.*, at para. 162.

⁴⁰ *Id.*, at para. 163.

⁴¹ *Id.*

⁴² Appellate Body Report, *EC—Asbestos*, para. 172: “We indicated in *Korea—Beef* that one aspect of the ‘weighing and balancing process ... comprehended in the determination of whether a WTO-consistent alternative measure’ is reasonably available is the extent to which the alternative measure ‘contributes to the realization of the end pursued’. In addition, we observed, in that case, that ‘[t]he more vital or important [the] common interests or values’ pursued, the easier it would be to accept as ‘necessary’ measures designed to achieve those ends. In this case, the objective pursued by the measure is the preservation of human life and health through the elimination, or reduction, of the well known, and life threatening, health risks posed by asbestos fibres. The value pursued is both vital and important in the highest degree. The remaining question, then, is whether there is an alternative measure that would achieve the same end and that is less restrictive of trade than a prohibition.”

⁴³ *Id.*

⁴⁴ *Id.*

certain GATT decisions in the pre-WTO era, the Appellate Body thereby determined that the burden of proof was not on the responding member to demonstrate that there are *no* reasonably available alternatives, but rather for the complaining member to make a *prima facie* case that there are.⁴⁵ Moreover, the Appellate Body held that an alternative measure may not be considered reasonably available “where it is merely theoretical in nature, for instance, where the responding Member is not capable of taking it, or where the measure imposes an undue burden on that Member, such as prohibitive costs or substantial technical difficulties.”⁴⁶

This position was affirmed in *Brazil—Tyres* (2007). That case involved Brazil’s imposition of an import ban against retreaded tires from the EC. Brazil claimed that the import ban was justified for health and environmental reasons under GATT Article XX(b) and (g). Building on *US—Gambling*, the Appellate Body noted that “the capacity of a country to implement remedial measures that would be particularly costly, or would require advanced technologies, may be relevant to the assessment of whether such measures or practices are reasonably available alternatives to a preventive measure, such as the Import Ban, which does not involve ‘prohibitive costs or substantial technical difficulties.’”⁴⁷ “It may prove difficult to isolate the contribution to public health or environmental objectives of one specific measure from those attributable to the other measures that are part of the same comprehensive policy.” It also noted that, in weighing the degree of contribution of a measure to the objective pursued, the measure’s contribution does not have to be “immediately observable” because it may form part of a “comprehensive policy comprising a multiplicity of interacting measures ... [that] can only be evaluated with the benefit of time.” The degree of contribution may be shown through either quantitative projections *or* qualitative reasoning.⁴⁸

The “material contribution” requirement may be capable of flexing on a case-by-case basis, requiring a lesser contribution from measures that do not greatly restrict trade and a greater contribution from those that greatly restrict trade. This interpretation was confirmed in *China—*

⁴⁵ Appellate Body Report, *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US—Gambling)* (DS 285), 7 April 2005, paras. 306–311.

⁴⁶ *Id.*, at para. 309.

⁴⁷ Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres (Brazil—Tyres)*, WT/DS332/AB/R, adopted 3 December 2007, para. 171.

⁴⁸ *Id.*, at para. 150-151.

AV Products.⁴⁹ The Appellate Body in *Brazil—Tyres* required a measure’s trade restrictiveness to be *balanced* by its contribution to the objective pursued, such that there is a “genuine relationship of ends and means.”⁵⁰ This language seems to interrelate Article XX(b) with Article XX(g), which, since *US—Shrimp*, has required a “close and genuine relationship of ends and means.”⁵¹ In the *EC—Seals* decision, the Appellate Body clarified that the material contribution standard is not a fixed requirement, but part of a more holistic weighing and balancing.⁵²

The nature of what must be necessary has also evolved under recent WTO jurisprudence. The text of GATT Article XX clearly indicates that what must be necessary under GATT Article XX(a), (b), or (d) are “measures” taken for the reasons under those subparagraphs. However, in the *Thailand—Cigarettes (Philippines)* case, the Appellate Body found that, in addition to the necessity of the measure itself, “what must be shown to be ‘necessary’ [to justify an inconsistency with GATT Article III:4] is the *treatment* giving rise to the finding of less favourable treatment.”⁵³ In *EC—Seals*, the Appellate Body explained that “the aspects of a measure to be justified under the subparagraphs of Article XX are those that give rise to the finding of inconsistency under the GATT 1994.”⁵⁴

This analysis suggests that a well-designed national carbon tax regime, extended to imported products through an import BTA in order to address leakage and thereby make the carbon tax regime effective to address climate change, would be likely to satisfy the requirements of Article XX(b) in order to merit an exception from prohibitions under GATT Articles I, II, or III, subject to compliance with the chapeau. In order to support the argument that no less restrictive alternative was available, under both the necessity test and the chapeau, it will be appropriate to seek to negotiate a cooperative international arrangement for carbon reduction in advance of establishing an import BTA and to remain open to replacing an import BTA with an international regime.

⁴⁹ Appellate Body Report, *China—Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (China—AV Products)*, WT/DS363/AB/R, adopted 21 December 2009, para. 310.

⁵⁰ *Id.*

⁵¹ Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products (US—Shrimp)*, WT/DS58/AB/R, adopted 6 November 1998, para. 136.

⁵² *European Communities—Measures Prohibiting the Importation and Marketing of Seal Products (EC—Seals)*, WT/DS400/AB/R, adopted 18 June 2014, paras. 5.214–5.216.

⁵³ Appellate Body Report, *Thailand—Customs and Fiscal Measures on Cigarettes from the Philippines (Thailand—Cigarettes (Philippines))*, WT/DS371/AB/R, adopted 17 June 2011, para. 177 (emphasis added). In the earlier *US—Gasoline*, the Appellate Body concluded that the measure itself, and not the violation, was the focus of GATT Article XX. See Appellate Body Report, *US—Gasoline*, WT/DS2/AB/R, pp. 13–14.

⁵⁴ *EC—Seals*, para. 5.185.

2. Article XX(g)

In order to qualify for an exception under Article XX(g), the relevant measure must (i) *relate to* the conservation of exhaustible natural resources, (ii) be made effective in conjunction with restrictions on domestic production or consumption, and (iii) satisfy the requirement of the chapeau of Article XX to the effect that it not be applied as arbitrary or unjustifiable discrimination or a disguised restriction on trade. The burden of proof for each of these parameters is on the respondent.

The first question to be answered under Article XX(g) is whether an exhaustible natural resource is being protected by the national measure. Here, perhaps the exhaustible natural resource is the climate itself, or perhaps the natural resource is the ability of the atmosphere to absorb carbon sustainably. In *US—Gasoline*, the panel determined that clean air qualifies as an exhaustible natural resource, on the basis that it has a value and is therefore a resource, that it can be depleted and is thus exhaustible, and that it is natural.⁵⁵ This is arguably analogous to carbon reduction. In *US—Shrimp*, the Appellate Body interpreted the term “exhaustible natural resources” in an evolutionary manner, referring to “contemporary concerns of the community of nations about the protection and the conservation of the environment.”⁵⁶

In its *US—Gasoline* report, although the parties had both relied on GATT “primarily aimed at” test for whether a measure is related to the conservation of exhaustible natural resources, the Appellate Body noted that the threshold of Article XX(g) did not contain a requirement that the measure be “primarily aimed at,” but only a requirement that the measure be “related to.”⁵⁷ The Appellate Body examined whether “the means (the challenged regulations) are, in principle, reasonably related to the ends.”⁵⁸

In *US—Shrimp*, the Appellate Body appears to have abandoned the “primarily aimed at” test and focused on the means–ends relationship between the measure and the goal pursued.⁵⁹

⁵⁵ Panel Report, *United States—Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, adopted 20 May 1996, as modified by Appellate Body Report, WT/DS2/AB/R, para. 6.37.

⁵⁶ Appellate Body Report, *US—Shrimp*, para. 129.

⁵⁷ Appellate Body Report, *US—Gasoline*, pp. 17–22, in particular: “participants and third parties agree ... accordingly we see no need to examine this point further, *save, perhaps, to note that the phrase primarily aimed at is not itself treaty language and was not designed as a simple litmus test for inclusion or exclusion from XX*” (emphasis added); *id.*, at pp. 21–22.

⁵⁸ *Id.*, at pp. 20–22.

⁵⁹ See Appellate Body Report, *US—Shrimp*, paras. 156–160.

“we must examine the relationship between the general structure and design of the measure here at stake, Section 609, and the policy goal it purports to serve, that is, the conservation of sea turtles.”⁶⁰ The “relating to” requirement under Article XX(g) has since been defined as a “close and genuine relationship of ends and means.”⁶¹

In *China—Rare Earths*, the Appellate Body added that there is no requirement under Article XX(g) that the purpose of the challenged measure must be to make effective restrictions on domestic production or consumption.⁶² In *China—Rare Earths*, China claimed that the panel erred in its decision regarding Article XX(g) of GATT 1994 because of the panel’s statements to the effect that Article XX(g) includes a separate requirement of “even-handedness” between national measures to conserve natural resources that otherwise violate GATT, on the one hand, and restrictions on domestic production or consumption, on the other hand. This concept exceeds the ordinary meaning of Article XX(g), which simply refers to measures “made effective in conjunction with restrictions on domestic production or consumption.”

The Appellate Body in *China—Rare Earths* found that evenhandedness is not a separate requirement, but is a shorthand way that has been used to describe the requirement in Article XX(g) that the measure be made effective in conjunction with domestic restrictions.⁶³ Examining whether the panel had erred in its application of this prong, the Appellate Body simply held that the restrictions on domestic production or consumption must be “real”⁶⁴ but need not be “evenly distributed.”⁶⁵ For the Appellate Body, “made effective in conjunction with” means that import and export restrictions must “work together” with domestic restrictions for conservation.⁶⁶

⁶⁰ *See id.*, at para. 141: “Focusing on the design of the measure here at stake, it appears to us that Section 609, cum implementing guidelines, is not disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species. The means are, in principle, reasonably related to the ends. The means and ends relationship between Section 609 and the legitimate policy of conserving an exhaustible, and, in fact, endangered species, is observably a close and real one, a relationship that is every bit as substantial as that which we found in *United States—Gasoline* between the EPA baseline establishment rules and the conservation of clean air in the United States.”

⁶¹ *Id.*, at para. 136.

⁶² Appellate Body Reports, *China—Measures Related to the Exportation of Various Raw Materials (China—Raw Materials)*, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R, adopted 22 February 2012, paras. 356 and 361.

⁶³ Appellate Body Report, *China—Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum (China—Rare Earths)*, WT/DS431,432,433/AB/R, adopted 29 August 2014, para. 5.124.

⁶⁴ *Id.*, at para. 5.132.

⁶⁵ *Id.*, at para. 5.134.

⁶⁶ Appellate Body Reports, *China—Raw Materials*, para. 356.

This analysis suggests that a well-designed national carbon tax regime, extended to imported products through an import BTA in order to address leakage and thereby make the carbon tax regime effective to address climate change, would be likely to satisfy the requirements of Article XX(g), in order to merit an exception from prohibitions under GATT Articles I, II, or III, subject to compliance with the chapeau. In order to support the argument that the measure is primarily aimed at conservation, the import BTA should be substantively and explicitly designed to respond to leakage, rather than to concerns regarding competitiveness.

3. Extraterritoriality in Articles XX(b) and (g)

During the GATT era, the second *Tuna* panel found that it was permissible under Article XX to protect animals outside the territorial jurisdiction of the regulating state.⁶⁷ In the WTO period, the Appellate Body has not yet provided a definitive interpretation as to whether relevant provisions of Article XX, such as Article XX(b) or (g), of GATT, allow exceptions for actions by importing states to protect values outside their territory.⁶⁸ In *US—Shrimp*, the Appellate Body avoided addressing this issue on the grounds that the relevant “exhaustible natural resource”—sea turtles—was migratory and might enter US waters.⁶⁹ However, the Appellate Body suggested that there must be “sufficient nexus” between the protected value (in that case, the sea turtles) and the regulating state.

In the carbon emissions context, a national import BTA might be said to be protecting life in the world at large, including in the importing state, under Article XX(b) or to be conserving a global exhaustible natural resource, including one that “belongs” to the regulating state, under Article XX(g), so it cannot be said that the state imposing a BTA is regulating in a purely extraterritorial way. Therefore, it would be unlikely that Article XX(b) or (g) would be found unavailable for this reason.

4. The Chapeau of Article XX

Even if a measure satisfies the requirements for Article XX(b) or (g), it must still satisfy the requirements of the chapeau of Article XX in order to qualify for an exception. The chapeau

⁶⁷ GATT Panel Report, *United States—Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155, para. 5.20.

⁶⁸ For a useful discussion in the human rights context, see Lorand Bartels, “Article XX of GATT and the Problem of Extraterritorial Jurisdiction: The Case of Trade Measures for the Protection of Human Rights,” 36:2 *J. World Trade* 353 (2002).

⁶⁹ See Appellate Body Report, *US—Shrimp*, para. 133.

establishes two standards regarding the application of measures for which justification under Article XX may be sought: first, there must be no “arbitrary” or “unjustifiable” discrimination between countries where the same conditions prevail; second, there must be no “disguised restriction on international trade.”⁷⁰

Therefore, a violation of any of these standards would suffice to disqualify the measure under Article XX. Yet the standards embodied in the language of the chapeau of Article XX are not only different from the requirements of the remainder of Article XX, but are also different from the standards used for the substantive violations of GATT.⁷¹

The Appellate Body in *Shrimp* (faced with a measure benefiting from a provisional justification under Article XX(g)) examined, under the chapeau of Article XX, whether less trade-restrictive alternatives were reasonably available to the United States and whether the restrictiveness of the measure was somehow disproportionate, since similar costs were not at all imposed on domestic producers.⁷² In other words, even after Article XX(g) is satisfied, a least trade-restrictive alternative analysis akin to a “necessity” test seems to be performed under the chapeau of Article XX. The United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol may provide a broad factual basis for argument that unilateral action is neither arbitrary nor unjustifiable.

As part of the less trade-restrictive alternative analysis, one question is whether the respondent has made sufficient attempts to engage in “across-the-board negotiations with the objective of concluding bilateral or multilateral agreements” regarding the concern at issue.⁷³ The fact that the United States has not ratified the Kyoto Protocol, or a successor agreement, may

⁷⁰ See Appellate Body Report, *US—Gasoline*, pp. 21–22; Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products—Recourse to Article 21.5 of the DSU by Malaysia*, WT/DS58/AB/RW, para. 118; and Appellate Body Report, *US—Shrimp*, WT/DS58/AB/R, para. 150.

⁷¹ Appellate Body Report, *US—Shrimp*, para. 150 (citations omitted). See also Appellate Body Report, *EC—Asbestos*: “Article III:4 and Article XX(b) are distinct and independent provisions of the GATT 1994 each to be interpreted on its own. The scope and meaning of Article III:4 should not be broadened or restricted beyond what is required by the normal customary international law rules of treaty interpretation, simply because Article XX(b) exists and may be available to justify measures inconsistent with Article III:4. The fact that an interpretation of Article III:4, under those rules, implies a less frequent recourse to Article XX(b) does not deprive the exception in Article XX(b) of *effet utile*. Article XX(b) would only be deprived of *effet utile* if that provision could *not* serve to allow a Member to “adopt and enforce” measures “necessary to protect human ... life or health.”

⁷² See Appellate Body Report, *US—Shrimp*, para. 171.

⁷³ *Id.*, para. 166.

give rise to arguments that it failed to engage sufficiently in attempts to negotiate an agreement. On the other hand, the United States has engaged in other negotiations that may be viewed as satisfying this concern.

A BTA regime should not be designed to coerce other states into establishing their own carbon regimes or joining an international regime. The Appellate Body found in the *Shrimp* case that the “most conspicuous flaw” in the US measure there was “its intended and actual coercive effect on the specific policy decisions made by foreign governments.”⁷⁴ A BTA regime should be structured to flexibly evaluate foreign carbon regimes, focusing on carbon reduction performance or effectiveness, rather than design.⁷⁵ Even if the exporting state lacks a carbon regime, exporters from that state should be provided an opportunity to show that their carbon intensity meets relevant benchmarks.

It is possible to have reasonable exceptions for exports from states that have suitable carbon regimes, or even possibly for developing countries: under the chapeau, it is permissible to treat different countries differently, so long as the discrimination is not arbitrary, is justifiable, and is based on salient differences. Indeed, the chapeau requires that countries in different circumstances be treated appropriately for their circumstances. Purity of motive is important. To the extent that imports from different sources, or even imports of different types, are treated differently for reasons that are not reflected in the justifying purpose under Article XX(b) or XX(g), the import BTA may be determined to include arbitrary or unjustifiable discrimination.⁷⁶ Of course, different treatment of goods from different origins will require appropriate rules of origin to address the problem of transshipment.

Due process in a BTA regime would be necessary. The Appellate Body found the US certification process at issue in the *Shrimp* case to constitute arbitrary discrimination because exporting countries were “denied basic fairness and due process, and are discriminated against, vis a vis those Members which are granted certification.”⁷⁷

As Hufbauer et al. have pointed out, inconsistency in the application of a national carbon tax could violate the chapeau, making an Article XX defense unavailable, where an *export BTA*,

⁷⁴ *Id.*, para. 161.

⁷⁵ *See id.*, Article 21.5, para. 144.

⁷⁶ Appellate Body Report, *Brazil—Tyres*, para. 227; Appellate Body Report, *EC—Seals*, para 5.306.

⁷⁷ Appellate Body Report, *US—Shrimp*, para. 181.

providing a rebate for a domestic carbon tax, is viewed as an arbitrary or unjustifiable discrimination between countries where the same conditions prevail.⁷⁸ In *Brazil—Retreaded Tyres*, the Appellate Body held that discrimination within the chapeau is arbitrary or unjustifiable “when the reasons given for this discrimination bear no rational connection to the objective *falling within the purview of a paragraph of Article XX.*”⁷⁹ The Appellate Body softened this line slightly in *EC—Seals*: “one of the most important factors in the assessment of arbitrary or unjustifiable discrimination is the question of whether the discrimination can be reconciled with, or is rationally related to, the policy objective with respect to which the measure has been provisionally justified under one of the subparagraphs of Article XX.”⁸⁰

Distinctions in BTA application, both on the import and on the export side, must be determined purely on the basis of environmental concerns and not on the basis of competitiveness concerns. Trade exposure should not be a parameter in determining the application of an import BTA.

Since an export BTA would be likely to actually undermine the environmental policy objective under Article XX(b) or (g), its discrimination between goods consumed at home and goods consumed abroad might render the import BTA ineligible for exception under the chapeau. On the other hand, the chapeau refers to “discrimination between countries where the same conditions prevail,” so it may be possible to design an export BTA that differentiates on the basis of prevailing conditions. For example, presumably if the destination country applied a consumption tax that had an equivalent carbon-deterrent effect to the production tax applied by the exporting state, it would seem reasonable, and completely consistent with the rationale for the exception, to apply an export BTA. The problem here is that it would be desirable from a competitiveness perspective to grant an export BTA on exports to states that lack an appropriate carbon regime, but desirable from a leakage perspective to grant an export BTA on exports only to states that apply an appropriate consumption-based carbon regime to the imported product.

In order to satisfy the requirements of the Article XX chapeau, an import BTA must be designed after good faith negotiations with trade partners, must be formulated in relation to carbon intensity rather than trade exposure, and must reduce import BTAs by reference to carbon taxes and other carbon reduction measures carried out by the exporting state or by the private exporter. There is a significant risk that an export BTA could cause the import BTA to violate the chapeau.

⁷⁸ Hufbauer et al., *Global Warming*, 69.

⁷⁹ Appellate Body Report, *Brazil—Tyres*, para. 225 (emphasis added).

⁸⁰ Appellate Body Report, *EC—Seals*, para. 5.318.

An alternative approach, less satisfactory from an environmental perspective but likely to pass WTO scrutiny, would simply identify products that generally have a high carbon intensity, and impose a product-based tax on those types of products, without further reference to their carbon intensity. This product-based tax would not otherwise vary by carbon content or by the carbon regime in the exporting state. It would not violate Articles I, II, or III of GATT and thus would not require an exception under Article XX. This simple product-based tax could also be eligible for export BTAs.

If, instead of an export BTA, a carbon tax credit is used domestically to ameliorate the effects of a carbon tax, the relevant import BTA would need to be adjusted to reflect comparable net treatment of imports. Otherwise, the regime would not meet the chapeau's requirements and might also violate some of the requirements of Article XX(g) or XX(b). Under Article XX(g), the requirement that restrictions be made effective in conjunction with domestic restrictions requires a degree of evenhandedness in the structure of import restrictions and domestic restrictions. Under Article XX(b), the relaxation of carbon taxes domestically may make it difficult to argue that they are necessary when applied to foreign goods.

A carbon tax, and an import BTA of a carbon tax, is dependent on determining, or establishing proxies for, the carbon "content" of products. Products can have carbon content in two ways. They can be produced using carbon, or their consumption may emit carbon. For example, gasoline is produced using carbon, and its consumption results in emissions of carbon. With respect to emissions that result from consumption, it is possible for the importing state to identify the amount of emissions and to set a tax accordingly. Emissions in production, on the other hand, take place by definition in the exporting state, so in order to determine actual or even likely emissions, it is necessary to use a benchmark or obtain information about the production process in the exporting state. This may involve complex accounting and tracing through long supply chains.

If the United States establishes an import BTA, it may use a default benchmark, such as the average emissions intensity in the implementing state, for determining the carbon intensity of imported products. However, if domestic producers are allowed to pay a carbon tax based on actual carbon intensity, then an import BTA must provide a reasonable opportunity for foreign producers to provide actual data in substitution for the benchmark. Presumably, only those foreign producers that actually have lower carbon intensity will do so.

Thus, if the United States establishes a carbon tax with an import BTA, it will need to establish a system for acquiring and auditing information about carbon emissions in production abroad. In the *Gasoline* case, the United States established requirements for "reformulation" of gasoline. In connection with certain chemical components, it allowed domestic producers to

establish individual “baselines” for determining how much of these chemical components would be permitted but relegated foreign producers to group baselines. It argued that it could not audit production abroad and therefore could not calculate individual baselines for foreign producers. The panel and Appellate Body found that this distinction in treatment amounted to “arbitrarily or unjustifiable discrimination between countries where the same conditions prevail” within the chapeau of Article XX, denying the United States an exception under Article XX.⁸¹ The Appellate Body stated as follows:

There are, as the Panel Report found, established techniques for checking, verification, assessment and enforcement of data relating to imported goods, techniques which in many contexts are accepted as adequate to permit international trade—trade between territorial sovereigns—to go on and grow. The United States must have been aware that for these established techniques and procedures to work, cooperative arrangements with both foreign refiners and the foreign governments concerned would have been necessary and appropriate. ... It appears to the Appellate Body, that the United States had not pursued the possibility of entering into cooperative arrangements with the governments of Venezuela and Brazil or, if it had, not to the point where it encountered governments that were unwilling to cooperate.⁸²

Thus, if the United States establishes an import BTA, it should seek to work with exporting states to develop methods for cooperation in determining carbon emitted in production abroad.

One possible extension of cooperation would be to enter into bilateral, regional, or multilateral agreements with other countries to cooperate in determining carbon emitted in production abroad and to accord the state of production primary rights to tax or otherwise limit such emissions. This type of arrangement would provide incentives to exporting states to cooperate. As discussed above, these types of mutual recognition agreements—recognizing the carbon regulation of the exporting state—should be made available to all WTO members on a nondiscriminatory basis, with the possible exception of providing special and differential treatment to developing countries.

⁸¹ Appellate Body Report, *US—Gasoline*, p. 27.

⁸² *Id.* (footnotes omitted).

If exporting states do not cooperate, it would be possible to establish a system that applies a default carbon baseline, subject to presentation of evidence of a lower carbon content, so long as this system parallels the domestic system. In the *Gasoline* case, the Appellate Body stated that statutory baselines could be used “when the source of imported gasoline could not be determined or a baseline could not be established because of an absence of data.”

Even if foreign states do not cooperate, it is possible to establish and apply default baselines, so long as they are subject to submission of actual data and are applied in a way that does not discriminate between domestic and imported products.

An alternative would be to discriminate *in favor* of foreign producers by using a presumption of foreign emissions consistent with the best available technology.⁸³

In sum, Article XX offers justifications that can lead to exemption from any provision of GATT,⁸⁴ in situations where the trade restriction or discrimination is viewed as necessary or otherwise appropriately and proportionally related to the implementation of the policies listed in Article XX. However, there are significant risks that an export BTA would prevent reliance on Article XX. On the other hand, a carbon tax compensating tax credit could serve as an alternative to an export BTA. In the next section, I discuss tax credits, and in section IV, I discuss the legal requirements for export BTAs.

III. WTO Law Analysis of Carbon Tax Compensating Tax Credits

A second question is how WTO law would restrict the use of domestic tax relief, possibly in the form of output-based carbon tax credits tied to best practices in the sector, to address competitiveness concerns arising from a carbon tax. While carbon tax credits could be a substitute for a BTA mechanism, they might alternatively be used in conjunction with an import BTA, as a substitute for an export BTA, considering that an export BTA may raise difficult WTO law issues. The main issues regarding carbon tax credits under WTO law arise from the WTO regulation of subsidies and countervailing duties, under GATT and the SCM Agreement.⁸⁵

⁸³ See Roland Ismer and Karsten Neuhoff, *Border Tax Adjustment: A Feasible Way to Address Nonparticipation in Emission Trading*, CMI Working Paper No. 36 (Cambridge, UK: University of Cambridge, 2004).

⁸⁴ See Appellate Body Report, *US—Gasoline*, p. 24.

⁸⁵ Under Article III:8(b) of GATT, producer subsidies are not subject to the national treatment obligations of Article III, although consumer subsidies would be subject to Article III.

A. Definition of a Subsidy

The disciplines of the SCM Agreement apply to subsidies as defined in Article 1 of that agreement. This definition requires that there be (i) a financial contribution by a government (ii) conferring a benefit on the relevant person. A tax credit would ordinarily constitute a financial contribution under Article 1.1(a)(1)(ii): “government revenue that is otherwise due is foregone or not collected (e.g., fiscal incentives such as tax credits).”⁸⁶ Therefore, any measure that has the structure of a tax credit—where the government forgoes collection of an amount that is otherwise due—would be understood as a financial contribution.

However, in the *US—Foreign Sales Corporations* line of cases,⁸⁷ the Appellate Body had a great deal of difficulty in determining what “otherwise due” means. It has been difficult to define the benchmark “normal case” from which the state has departed in forgoing revenue.⁸⁸ After lengthy litigation where this issue was addressed in varying ways in connection with the US Foreign Sales Corporations tax regime, the Appellate Body settled on a comparison of the tax measure with what it termed “legitimately comparable income” within the relevant national tax regime.⁸⁹ Although the words “legitimately comparable income” are not treaty language, to the extent that legitimacy is relevant to the determination of comparability, the normative support for carbon tax credits that may be derived from the reference to “sustainable development” in the first preambular paragraph of the WTO Charter, as well as from other international law, may be relevant.

This leads to the question of whether a measure having the economic characteristics of a tax and tax credit combination could instead be structured as a more precise tax—one that would

⁸⁶ Citation omitted.

⁸⁷ Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations,”* WT/DS108/AB/R, adopted 20 March 2000; Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”—Recourse to Article 21.5 of the DSU by the European Communities,* WT/DS108/AB/RW, adopted 29 January 2002; Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”—Second Recourse to Article 21.5 of the DSU by the European Communities,* WT/DS108/AB/RW2, adopted 14 March 2006.

⁸⁸ See Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”*; Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”—Recourse to Article 21.5 of the DSU by the European Communities*; Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”—Second Recourse to Article 21.5 of the DSU by the European Communities*.

⁸⁹ Appellate Body Report, *United States—Tax Treatment for “Foreign Sales Corporations”—Recourse to Article 21.5 of the DSU by the European Communities*, para. 91.

exclude from taxation the activities that would otherwise be addressed by the tax credit. Thus, if the goal is to provide credits based on best practices, perhaps the tax could be structured instead so as to tax only those producers that fail to achieve best practices—a precise Pigouvian producer tax. Then a plausible argument might be made that the tax is not “otherwise due” and no subsidy exists.

Another way to achieve a similar goal would be to structure the original carbon tax as a consumption tax—taxing consumers on the carbon released to produce products they consume and calculating the tax by reference to best practices.⁹⁰ This structure would have the same advantage as the precise Pigouvian producer tax described in the previous paragraph, but it would also have an additional advantage. As a consumption tax, it would apply not only to domestically produced goods but also to imported goods. It would thus combine an import BTA equivalent with a tax credit equivalent. It would provide a level playing field in the domestic market and appropriate incentives for any producer addressing the domestic market to achieve best practices. Of course, a consumption tax might be difficult to administer, but one way to ease its administration is to structure it as a withholding tax and make the producer or importer a withholding tax agent, required to withhold the amount of the tax on products sold.

A carbon consumption tax based on departures from best practices would have the advantage of avoiding the need for BTAs, as it would apply to all goods consumed within the United States and additionally would avoid characterization as a subsidy.

One special case relates to border tax adjustments on export. According to footnote 1 of the SCM, “the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed a subsidy.” This issue is addressed further in section IV below.

In addition to a governmental financial contribution, in order to constitute a subsidy, there must be a benefit to the recipient. The parameter of “benefit” means that even if the government provides goods or services, for example, there is no subsidy unless they are provided at a price below the market price.⁹¹ Of course, in the case of the forgone revenue category of

⁹⁰ See Christian Lininger, *Consumption-Based Approaches in International Climate Policy* (Springer, 2015).

⁹¹ Appellate Body Report, *Canada—Measures Affecting the Export of Civilian Aircraft (Canada—Aircraft)*, WT/DS70/AB/R, adopted 20 August 1999.

financial contribution, the idea that revenue “otherwise due” is forgone entails a clear and easily calculable benefit: whatever amount was otherwise due is the amount of the benefit.

Thus, by use of a Pigouvian consumption tax, it may be possible to structure a measure with the same economic effects as a countervailing tax credit in a way that does not constitute a subsidy at all. Assuming that this strategy fails or is not used, I review the remaining aspects of relevant subsidies law. If a measure constitutes a subsidy, it may be prohibited under certain circumstances, and it may be countervailed, if the good is exported, under certain circumstances.

B. Prohibited Export Subsidy or Import Substitution Subsidy

Certain subsidies are explicitly prohibited in Article 3 of the SCM: subsidies contingent on export performance (export subsidies) and subsidies contingent on the use of domestic over imported goods (import substitution subsidies). This prohibition applies to both de jure and de facto contingency. While producer subsidies are exempted from the national treatment obligations of Article III of GATT, subsidies that are conditional on use of domestic inputs are illegal under this provision of the SCM Agreement.

It is permissible to provide subsidies to specified industries, or even specified firms, even if those firms are chosen based on their exposure to trade or their propensity to export, so long as the subsidies are not in law or fact actually contingent on export performance or use of domestic inputs. The Appellate Body has held that the provision of subsidies to an industry that exports a large proportion of its production alone does not constitute export contingency and thus does not constitute an export subsidy.⁹² Thus, for example, if the steel industry is EITE, it can be selected for tax credits without those credits thereby becoming illegal under SCM Article 3.

C. Specificity

Export subsidies and import substitution subsidies are deemed “specific.” For all other subsidies, no action can be taken against them, whether in the form of WTO dispute settlement challenge or countervailing duties, unless they are specific within the meaning of Article 2 of the SCM Agreement. The question is whether the subsidy “is specific to an enterprise or industry or group of enterprises or industries.” Specificity exists if the subsidy explicitly limits access to certain enterprises. On the other hand, where the subsidy program establishes objective criteria

⁹² *Id.*, para. 171.

governing the eligibility for and the amount of the subsidy, specificity does not exist. Under Article 2.1(b), “the criteria or conditions must be clearly spelled out in law, regulation, or other official document, so as to be capable of verification.” Furthermore, “objective” criteria are those “which are neutral, which do not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise.” Carbon intensity would appear to qualify as an objective criterion. Although there is no dispositive precedent, it appears unlikely that a broadly available carbon intensity-based subsidy would be found to be specific. A panel that recently considered specificity stated that “what matters is the existence of a restriction on access to the subsidy, in the sense that the subsidy is available to certain enterprises, industries, or groups of enterprises or industries, but not to others.”⁹³ On the other hand, if the subsidy were allocated based on trade exposure, the likelihood of a finding of specificity would be increased.

Where a subsidy is not de jure specific for these reasons, it may be examined to determine whether it is de facto specific. Factors to be considered in this determination under Article 2.1(c) include “use of a subsidy program by a limited number of certain enterprises, predominant use by certain enterprises, the granting of disproportionately large amounts of subsidy to certain enterprises, and the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy.” The Appellate Body has stated that “where the granting of the subsidy indicates a disparity between the expected distribution of that subsidy, as determined by the conditions of eligibility, and its actual distribution, a panel will be required to examine the reasons for that disparity so as ultimately to determine whether there has been a granting of disproportionately large amounts of subsidy to certain enterprises.”⁹⁴

Therefore, a carbon tax credit that is neither an import substitution subsidy nor an export subsidy, if it satisfies the requirement of objective criteria of Article 2.1(b), would not be specific and would accordingly be immune from any action under the SCM Agreement.

Thus, it is entirely possible that a carbon tax regime could be structured to impose lesser charges on producers that follow best practices without (i) meeting the definition of “subsidy” and/or (ii) satisfying the specificity criterion. If the regime was a specific subsidy, it might be subject to challenge in WTO dispute settlement under Article 5 of the SCM Agreement, relating to “adverse effects.” and it might be subject to countervailing duties in export markets.

⁹³ Panel Report, *United States—Countervailing Measures on Certain Hot-Rolled Carbon Steel Flat Products from India*, WT/DS436/R, adopted 19 December 2014, as modified by the Appellate Body Report, WT/DS 436/AB/R, adopted 19 December 2014, para. 7.121.

⁹⁴ Appellate Body Report, *United States—Measures Affecting Trade in Large Civil Aircraft (Second Complaint)*, WT/DS353/AB/R, adopted 23 March 2012, para. 879.

D. Article 5 Adverse Effects

If another WTO member challenges a carbon tax regime of the type discussed above, after showing that the regime constituted a subsidy and was specific, it would be required under Article 5 to show that the regime caused adverse effects to its interests, including (i) injury to the domestic industry of another member state, (ii) nullification or impairment of tariff commitment benefits accruing under GATT, or (iii) serious prejudice. These categories are not necessarily factually exclusive. Upon such a showing, Article 7.8 of the SCM Agreement requires states to either remove the adverse effects or withdraw the subsidy. It is possible that a carbon tax credit, if it were determined to be a subsidy, could cause adverse effects.

First, a carbon tax credit could have significant enough effect to cause injury to another member state's domestic industry, either through competitive effects in the granting state's domestic market, which is its intent, or through competitive effects in the complaining state's domestic market. Whether injury exists would be determined by examining "all relevant economic factors and indices having a bearing on the state of the industry," with a nonexhaustive list of factors contained in Article 15.4 of the SCM Agreement. Injury is evaluated with respect to the producers of a "like product," defined in footnote 46 to Article 15.1 of the SCM Agreement as a "product which is identical, i.e. alike in all respects to the product under consideration, or in the absence of such a product, another product which, although not alike in all respects, has characteristics closely resembling those of the product under consideration."⁹⁵

Second, a claim of nullification or impairment might be based on the argument that other obligations under WTO law, such as tariff commitments, were reduced in value to the complaining state by virtue of the carbon tax credit.⁹⁶ This claim would be unlikely to succeed if the carbon tax credit has a "level playing field" design. The complaining state could not claim that, when it accepted prior concessions, it expected the credit granting state to both (i) establish a carbon tax *and* (ii) decline to attenuate its competitive effects through a subsidy. On the other hand, if the carbon tax credit exceeds the carbon tax, then it might support such a claim. Furthermore, if the complainant can argue that the carbon tax credits are separate from the carbon tax, it might be able to claim that the carbon tax credits, considered alone, result in

⁹⁵ In Panel Report, *Indonesia—Autos*, paras. 14.172–14.253, the panel referred to a broad list of attributes of likeness, including physical characteristics, brand, use, substitutability, price, end use, and tariff classification.

⁹⁶ See, e.g., GATT Panel Report, *European Economic Community—Payments and Subsidies Paid to Processors and Producers of Oilseeds and Related Animal-Feed Proteins*, L/6627, adopted 25 January 1990, BISD 37S/86.

nullification or impairment. It would be important for a legislature to integrate its carbon tax credit with its carbon tax and to establish them simultaneously or even, as suggested above, to establish a more precise carbon tax with limitations on its application, instead of credits. This approach would make it difficult to argue, first, that the measure includes a subsidy, because no revenue otherwise due would be forgone, and second, that the measure frustrates legitimate expectations and therefore nullifies or impairs prior liberalization commitments.

Third, “serious prejudice” includes, generally speaking, (i) displacement in the subsidizing state’s market, (ii) displacement in a third-state market, (iii) price suppression or undercutting, or (iv) increase in the world market share of the subsidizing state in a particular primary product or commodity.

E. Countervailability

Even subsidies that are not illegal export or import substitution subsidies, and subsidies that do not cause adverse effects of the types discussed above, may be countervailed by an importing state, where the importing state makes a finding that the imported goods are subsidized, that the subsidy is specific, and that it has caused or is threatening to cause material injury to a domestic industry. The same issues addressed above regarding whether the measure constitutes a subsidy and whether it is specific would be relevant to countervailability. In order to determine causation by the subsidy of serious injury to a domestic industry, a domestic authority in the importing state would be required to make a factual determination under Article 15 of the SCM Agreement.

F. Application of the Agreement on Agriculture

Any subsidy on an agricultural product, as listed in Annex 1 of the Agriculture Agreement, may also be subject to that agreement. The Agriculture Agreement sets limits on certain domestic and export subsidies on these products. To the extent that a tax credit might otherwise constitute a prohibited export subsidy under GATT and the SCM Agreement, it might be permitted under the Agriculture Agreement, provided that it falls within specified limits. The relationship between GATT and the SCM Agreement, on the one hand, and the Agriculture Agreement, on the other hand, is not clearly specified, although Article 21.1 of the Agriculture Agreement states that “the provisions of GATT ... and of [the SCM Agreement] shall apply

subject to the provisions of this Agreement.”⁹⁷ In *Upland Cotton*, the Appellate Body has held that Article 21.1 applies

where ... an explicit carve-out or exemption from the disciplines in Article 3.1(b) of the SCM Agreement existed in the text of the Agreement on Agriculture ... where it would be impossible for a Member to comply with its domestic support obligations under the Agreement on Agriculture and the Article 3.1(b) prohibition simultaneously ... [and] where there is an explicit authorization in the text of the Agreement on Agriculture that would authorize a measure that, in the absence of such an express authorization, would be prohibited by Article 3.1(b) of the SCM Agreement.⁹⁸

Therefore, in the absence of a specific carve-out, explicit authorization, or direct conflict, states generally must comply with their obligations both under the Agriculture Agreement and under the SCM Agreement. Perhaps a clear implicit authorization in the Agriculture Agreement would override the prohibition on export subsidies in the SCM Agreement.⁹⁹ However, the scope for these export subsidies is limited under the Agriculture Agreement.

G. Availability of Article XX Exception

Article XX of GATT, by its terms, provides that “nothing in *this* Agreement shall be construed to prevent the adoption or enforcement by any contracting party of [listed] measures.”¹⁰⁰ So, in order for the SCM obligations described above to be eligible for an Article XX defense, the relevant provisions of the SCM must somehow be included in “this Agreement”—in GATT—or the Article XX exceptions must be incorporated by reference in the SCM. There is no definitive jurisprudence thus far on the availability of an Article XX exception for violations of the SCM Agreement, although to the extent that the obligations in the SCM Agreement are elaborations of obligations under GATT, there would be a strong argument that the Article XX exceptions available for the GATT obligations are also available for those SCM obligations. In *US—Shrimp (Thailand)*, the Appellate Body assumed *arguendo* that an Article

⁹⁷ See Lorand Bartels, *The Relationship between the WTO Agreement on Agriculture and the Agreement on Subsidies and Countervailing Measures*, University of Cambridge Faculty of Law Legal Studies Research Paper Series, July 2015, available at <http://www.law.cam.ac.uk/ssrn/>.

⁹⁸ WTO Panel Report, *US—Upland Cotton*, WT/DS267/R, adopted 21 March 2005, as modified by Appellate Body Report, para 7.1038.

⁹⁹ See Bartels, *Relationship*.

¹⁰⁰ Emphasis added.

XX defense was available under the (somewhat similar) Anti-dumping Agreement but did not decide the issue.¹⁰¹

Both the SCM Agreement and GATT are part of the same broad WTO Agreement. In its 2013 decision in *Rare Earths*, declining to apply Article XX to China's obligations under its protocol of accession, the Appellate Body explained that the relationship among different provisions of the broad WTO Agreement depends on the particular context of those provisions. The Appellate Body gave the example of cumulative application of the Safeguards Agreement and Article XIX of GATT 1994,¹⁰² as well as the more salient example of the *China—Audiovisual Products* decision, in which it observed that “whether China may, in the absence of a specific claim of inconsistency with the GATT 1994, justify its measure under Article XX of the GATT 1994 must in each case depend on the relationship between the measure found to be inconsistent with China's trading rights commitments, on the one hand, and China's regulation of trade in goods, on the other hand.”¹⁰³

In *China—Audiovisual Products*, the Appellate Body held that GATT Article XX could be invoked as an exception with respect to Article 5.1 of China's Accession Protocol. Article 5.1 states that it imposes obligations “[w]ithout prejudice to China's right to regulate trade in a manner consistent with the WTO Agreement.” This language was understood by the Appellate Body to incorporate by reference Article XX.

Article 32.1 of the SCM Agreement provides that “no specific action against a subsidy of another Member can be taken except in accordance with the provisions of GATT 1994, as interpreted by this Agreement.” This language suggests that the SCM Agreement is an “interpretation” of GATT, which might support an argument that Article XX of GATT is applicable to the SCM obligations. This language might also be read as a prohibition of action under the SCM Agreement that is not in accordance with GATT. Whether an action against a national measure that qualifies for an exception under Article XX would or would not be in accordance with GATT is a question for interpretation if this issue arises. It would be more

¹⁰¹ Appellate Body Report, *United States—Measures Relating to Shrimp from Thailand / United States—Customs Bond Directive for Merchandise Subject to Anti-dumping/Countervailing Duties*, WT/DS343/AB/R, WT/DS345/AB/R, adopted 1 August 2008.

¹⁰² Appellate Body Report, *China—Rare Earths*, paras. 5.53–5.55, citing Appellate Body Report, *Argentina—Footwear (EC)*, para. 97.

¹⁰³ Appellate Body Report, *China—AV Products*, para. 229.

difficult to extend this reasoning to protect carbon tax credits from countervailing duties, but the argument would be that the countervailing duty is a specific action against a subsidy, and it is not in accordance with the permission given for environmental measures under Article XX.

H. Other International Law

The UNFCCC does not authorize subsidies, nor does the Kyoto Protocol. In any event, other international law is unlikely to be applied by a WTO dispute settlement tribunal as a defense against claims of violation.

IV. Export BTA

An export BTA in relation to a carbon tax would, upon the export of the relevant goods, rebate carbon taxes paid in connection with domestic production. An import BTA need not be matched by an export BTA, and in fact, as discussed in section II above, the existence of a general export BTA may be inconsistent with an Article XX defense of an import BTA, because it might impede the argument of necessity under Article XX(b) or violate the Article XX chapeau's prohibition of arbitrary or unjustifiable discrimination.

There are two main legal issues in connection with export BTAs. The first is whether they constitute subsidies, and export subsidies, under WTO law. The second is whether differential application to exports to different destination countries violates the MFN obligation of Article I of GATT. Note the practical issue that differential application to exports to different destination countries would require measures to prevent transshipment. Prevention of transshipment is possible by analogy to export controls on dual use or weapons goods, but it raises important administrative concerns.

As discussed in section III, under Article 1 of the SCM Agreement, a subsidy exists if government revenue that is otherwise due is forgone, and a benefit is thereby conferred. So an export BTA that forgoes carbon taxes on exported products would initially appear to qualify as a subsidy. However, footnote 1 to the SCM Agreement, expanding on Article VI:4 of GATT, provides that "the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy." This provision raises again the question of what it means for a tax to be "borne by a product." In addition, as suggested in section III, if the initial carbon tax is structured as a domestic

consumption tax, applicable only to domestic consumers, it might be argued that there is no applicable tax to be forgone.

If the export BTA is a subsidy, its conferral would appear to be contingent on export performance, so it might, in addition, constitute a prohibited export subsidy under Article 3 of the SCM Agreement. The fact that it might also be contingent on the importing state's carbon regime would not ordinarily insulate it from attack as an export subsidy. However, under Items (e), (g), and (h) of Annex I to the SCM Agreement, and under the ad note to Article XVI of GATT, the exemption or remission of indirect taxes (nonincome taxes, defined in footnote 58 of the SCM Agreement) in respect of exports in an amount no more than the amount levied does not constitute an *export* subsidy. So even if the export BTA is a subsidy, and even if it is contingent on export performance, it might be excluded from the definition of "export subsidy."

The structure of paragraph (g) of Annex I to the SCM Agreement, the Illustrative List of Export Subsidies, suggests under an a contrario interpretation that an export BTA would not constitute an export subsidy where it provides a remission of indirect taxes *not* "in excess of those levied in respect of the *production* and distribution of like products when sold for domestic consumption."¹⁰⁴ The reference to production suggests that even a PPM-type tax could qualify. Footnote 58 to the SCM Agreement makes clear that (i) direct taxes include only income taxes and taxes on real property, and (ii) indirect taxes include all other taxes. Therefore, carbon taxes and all other PPM taxes—taxes on production processes, as opposed to income taxes—would be included in indirect taxes. Therefore, an export BTA of carbon taxes would not be considered an export subsidy.

It appears likely that an export BTA, even if it is understood as a subsidy, would not constitute a prohibited export subsidy.

Kateryna Holzer suggests that an export BTA that satisfies the requirements of paragraph (g) of the Illustrative List might be determined to be an export subsidy if it is otherwise contingent on exportation, where the export BTA is made available only to EITE industries determined by reference to their exportation.¹⁰⁵ However, footnote 58 seems reasonably clear,

¹⁰⁴ Emphasis added.

¹⁰⁵ Holzer, *Carbon-Related Border Adjustment*, 203.

and footnote 4 to the SCM Agreement states that “the mere fact that a subsidy is granted to enterprises which export shall not for that reason alone be considered to be an export subsidy within the meaning of this provision.” Referring to this provision in *Canada—Aircraft*, the Appellate Body held that “merely knowing that a recipient’s sales are export-oriented does not demonstrate, without more, that the granting of a subsidy is tied to actual or anticipated exports.”¹⁰⁶ Further elaborating this issue, the Appellate Body in *EU—Aircraft* established the following test: “is the granting of the subsidy geared to induce the promotion of future export performance by the recipient?”¹⁰⁷ Thus the essential question is whether the subsidy induces the exports, not whether the anticipation of exports induces the subsidy.

An export BTA program might be designed to deny rebates in connection with exports to countries that do not have a satisfactory carbon restriction. This would obviously be inconsistent with the competitive goal of the rebate, but it would be consistent with the environmental goal of the carbon tax. However, export BTAs that vary by reference to the importing state’s carbon regime would be subject to the MFN obligation contained in Article I of GATT. Here the analysis would be similar to that set forth in section III above.

Article XX would be available to provide a defense for violations of Article I of GATT, as well as GATT prohibitions on export subsidies. In addition, as discussed in section IV, it is arguable that the Article XX exception may be available in relation to violations of the SCM prohibitions on export subsidies.

V. Compliance Strategy, Civil Disobedience, and Efficient Breach

The discussion above suggests substantial uncertainties regarding the possibility to defend any import BTA, export BTA, or trade-exposure targeted subsidy. Thus a period of several years would pass after national legislation of these mechanisms before the United States would experience authorized prospective retaliation, and the country would have ample time to come into compliance before any retaliation occurs.¹⁰⁸

¹⁰⁶ *Canada—Aircraft*, para. 173.

¹⁰⁷ Report of the Appellate Body, *European Communities and Certain Member States—Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R (May 18, 2011), para. 1044.

¹⁰⁸ See Pauwelyn, “Carbon Leakage Measures,” 448, 475.

Even if a national carbon tax regime with import BTAs and/or export BTAs, or a subsidy to support exports, were to violate WTO law, the formal response by other states would generally be imposed prospectively after a three-year litigation period and would be in the form of suspension of concessions or other obligations in an amount equivalent to the nullification or impairment of WTO rights resulting from the measure found to violate WTO law (except possibly in the case of export subsidies, where the retaliation may be greater). Therefore, as a practical matter, a state may decide to engage in civil disobedience or to operate in what might be understood as “efficient breach” in response to this level and type of retaliation. The specific industries targeted for the retaliation could even be supported through subsidies. In light of this aspect of WTO dispute settlement, combined with the fact that an evenhanded carbon tax structure would be unlikely to result in reputational costs to the United States, the uncertainty of WTO law may not be a significant deterrent to implementation of these measures.